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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PAYNE, DAVID C	
ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/826,394	ANDERSON, ET AL.	
	Examiner	Art Unit	
	David C. Payne	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/9/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-78 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-10, 12, 14-22, 24-55, and 57-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over May US 5,446,783 A (May) in view of Rybicki et al. US 6,151,149 (Rybicki) and Ruppert et al. US 6,236,969 B1 (Ruppert) and Pieterse et al. US 5,714,741 A (Pieterse) and Weatherill US 5,881,149 (Weatherill).

Regarding claims 1, 4, 8, 9, 15, 17, 35, 51, 61

A portable communication system for use by a user with a communication apparatus having an audio port, the system comprising: an infrared transmitter apparatus (51 of Figure 3B), wherein the infrared transmitter apparatus comprises: at least one audio port configured to receive an audio signal representative of received audio input from the communication apparatus (12 of Figure 3A), at least one infrared light emitting device (66 of Figure 5),

May does not disclose

modulation circuitry operable to convert the audio signal to one or more constant width electrical pulses to drive the infrared light emitting device to transmit one or more corresponding constant width infrared pulses

a microphone coupled to the at least one audio port of the infrared transmitter apparatus and operable to generate an audio signal from received sound input of the user, wherein the audio signal generated from received sound input of the user is provided to the audio port of the communication apparatus via the audio port of the infrared transmitter apparatus,

a transmitter housing enclosing the modulation circuitry and the microphone and upon which the at least one infrared light emitting device is mounted, wherein the transmitter housing is of a size smaller than the communication apparatus and configured to be removably coupled onto the communication apparatus; and an infrared receiver apparatus, wherein the infrared receiver apparatus comprises: an infrared light detection device to detect the one or more corresponding constant width infrared pulses and generate one or more electric signals representative of the detected infrared pulses, a speaker, demodulation circuitry operable to convert the one or more electric signals representative of the detected infrared pulses to an audio signal to power the speaker to produce a sound output, and a receiver housing enclosing the speaker and the demodulation circuitry and upon which the infrared light detection device is mounted, wherein the receiver housing is formed to be self-supported by the ear of the user.

Rybicki disclosed

modulation circuitry (Figure 1) operable to convert the audio signal to one or more

constant width electrical pulses (e.g. col./line: 4/55-67) to drive the infrared light emitting device (20 of Figure 1) to transmit one or more corresponding constant width infrared pulses (Figure 13)

a speaker, demodulation circuitry (12 of Figure 1) operable to convert the one or more electric signals representative of the detected infrared pulses to an audio signal to power the speaker to produce a sound output.

It would have been obvious to one of ordinary skill in the art at the time of invention to use the modulation and demodulation circuitry of Rybicki in the May invention so that electrical signals could be converted to optical signals free of noise.

Rupert disclosed

a microphone (Fig. 1 #18) coupled to the at least one audio port of the infrared transmitter apparatus and operable to generate an audio signal from received sound input of the user, wherein the audio signal generated from received sound input of the user is provided to the audio port of the communication apparatus via the audio port of the infrared transmitter apparatus,

and a receiver housing enclosing the speaker and the demodulation circuitry and upon which the infrared light detection device is mounted . It would have been obvious to one of ordinary skill in the art at the time of invention to use the microphone and infrared transmitter to send signals to a remote device.

Pieterse disclosed

a removably coupled transmitter (2a of Figure 3) onto the communication apparatus.

It would have been obvious to one of ordinary skill in the art at the time of invention to

use the Pieterse coupled transmitter to the main communication device to provide a method of remote attachment between the user and the communication device.

Weatherill disclosed

a transmitter detachable and supported by the ear (Fig. 1a).

It would have been obvious to one of ordinary skill in the art at the time of invention to use an ear supported device so as to make the device more compact and less cumbersome for the wearer.

Regarding claim 29,

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill does not disclose a removable transmitter is of a size smaller than the phone apparatus. While he Pieterse transmitter (2a of Figure 3) is not smaller that the phone (13). It would have been obvious to one of ordinary skill in the art at the time of invention to make the device smaller than the phone so as to miniaturize the aggregate size as much as possible. Furthermore, lacking any criticality it is not patentable to make parts smaller than the prior art.

Regarding claims 18, 20, 27, 31, 38, 45, 46 60, 65, 66, 71, 72, 76, 77

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught disclosed wherein the receiver housing comprises an opening defined therein configured to receive a removable battery apparatus (e.g., May col./line: 3/25-30).

Regarding claims 6, 7, 24, 25, 40-43, 47, 48, 62, 63, 69, 70 and 75

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught disclosed

wherein the ear retaining portion terminates with a compactable and expandable material for insertion in the concha of an ear of a user (Ruppert, Fig. 1); and a body portion extending from a first end (#35) to a second end along a body portion axis (#16), wherein the ear retaining portion extends from the first end of the body portion along an axis of predominate sound direction of the speaker that is orthogonal to the body portion axis,

Regarding claim 2, 36, 54, 57, 58

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught wherein the microphone is coupled to the at least one audio port of the infrared transmitter apparatus (Rybicki, Figure 1 #20) via an amplification circuit (Rybicki, Figure 1 #18) to provide the audio signal with a gain.

Regarding claims 3, 19, 37, 52

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught does not disclose wherein the gain is in the range of 2 to 20. It would have been obvious to one of ordinary skill in the art at the time of invention to choose a gain in the range of 2 to 20 so as to provide a distinguishable signal to the receiver. Furthermore, lacking any criticality scaling the gain is not considered patentable over the prior art.

Regarding claims 5, 21, 33, 39

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught does not disclose wherein the transmitter housing is removably coupled onto the communication apparatus by a two faced adhering system. It would have been obvious to one of ordinary skill in the art at the time of invention to use a two faced adhering system to secure the separate pieces as this is extremely well known in the art as a method of fastening parts.

Regarding claims 10, 12, 22, 32, 49, 50, 55, 64

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught wherein an edge detect circuit to detect the edges of the one or more width modulated pulses and generate constant width pulses based on the detected edges; and a pulse driver circuit to drive the infrared light emitting device (e.g., Rybicki, col./line: 14/35-50)

Regarding claim 14, 26, 30, 44, 53, 59, 68, 74, 78

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught does not disclose wherein the size of the transmitter housing comprises a volume less than about 5 cubic cm or a body portion less than 13 cubic cm. However, it would have been obvious to one of ordinary skill in the art at the time of invention to design a volume small enough to fit into the concha of the ear. Furthermore, lacking any criticality it is not patentable over the prior art to scale the dimension of the part.

Regarding claims 16, 28, 67, 73

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught does not disclose wherein the removable battery apparatus is configured to receive at least one of button type batteries and cylindrical alkaline batteries. However, these type of batteries are extremely well known in the art and are not considered patentable over the prior art.

Regarding claim 34

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught does not disclose wherein the method further comprises: detaching the removable transmitter from the phone apparatus; and securing the removable transmitter to a different phone apparatus. It would have been obvious to one of ordinary skill in the art at the time of invention to move the removable transmitter to different phones so that more than one phone is operable via IR transmitter. It is extremely obvious that removable portable parts can be attached to similar devices.

4. Claims 11, 13, 23, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over May US 5,446,783 A (May) and Rybicki et al. US 6,151,149 (Rybicki) and Ruppert et al. US 6,236,969 B1 (Ruppert) and Pieterse et al. US 5,714,741 A (Pieterse) and Weatherill US 5,881,149 (Weatherill) as applied to claims 1, 17, and 51 above, and in further view of Noetzel US 4980926 A (Noetzel).

The modified invention of May, Rybicki, Ruppert, Pieterse and Weatherill as taught does not disclose wherein the modulation circuitry comprises voice activated power up circuitry operable to power on from an idle mode. Noetzel disclosed (e.g., col./line: 4/45-60) a circuit that is voice activated from a battery mode. It would have been obvious to one of ordinary skill in the art at the time of invention to voice activate the modulation circuitry from an idle mode as a convenience for the user to avoid having to locate and press activation buttons.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp

David C. Payne
Patent Examiner
AU 2633